

Exmouth, July 18.

Since the above was written I have taken two examples, one this morning, of the smoothest variety of the '*convexum*,' late the '*nitidum*'; both are in the vase with the highly punctured one captured 20th June last, now quite vigorous, in company with the *L. squamosum* alluded to as taken 2nd July; this capture has given me the advantage of a live examination of the two completely opposite conditions of the '*convexum*,' whereas the one above was only referable in comparison with an account of a live '*nitidum*' taken last year. And I can again state that the two varieties are identical.

Lepton Clarkia (nova species).

Annals Nat. Hist. New Series, vol. ix. pp. 191 & 293.

The above references give every particular of the shell of this new species, of which it is probable I may detect the animal; but the hinge is so completely identical with that of the *L. convexum*, that it may be presumed its organs will not greatly differ from it.

I am, Gentlemen, your most obedient servant,

WILLIAM CLARK.

BIBLIOGRAPHICAL NOTICES.

A History of Infusorial Animalcules, Living and Fossil.

By ANDREW PRITCHARD, M.R.I. 8vo, pp. 704. Whittaker & Co.

A NEW edition of the only English version of the laborious investigations which have made Prof. Ehrenberg's name famous among micro-naturalists (if we may for the nonce coin a word as good as micro-mammalogists), must be looked upon as a praiseworthy and creditable undertaking.

So far as mere facts are concerned, so many have accumulated during the fourteen years that have elapsed since the publication of the great work, to which we have been indebted for the first impulse to investigation, and for the first guidance in the confused and difficult task, that the gathering them into one place, and making them all accessible to the English reader, is a service of no small merit.

Again, however much Prof. Ehrenberg may condemn them as heretical, it is indubitable that a large body of Fathers of greater or less authority have added their writings to his Canon. Indeed, they have not unfrequently ventured to impugn and protest against the statements of the head of the church microscopical himself.

Mr. Pritchard has with a laudable eclecticism gathered *all* these, wheat and tares, poppy and clover, into one sheaf (a very considerable sheaf too); but thrashing and winnowing is evidently in his view

no part of the editorial duty; or to speak without a metaphor, the book has been collected, not edited at all.

We by no means make these remarks in a spirit of detraction. The book is a very useful one, and will be of great service to those who are at work upon the Infusoria. To publish such a book at all involves a great risk to any one who undertakes it, and our sole regret is, that such a risk having been incurred, the opportunity should not have been seized for building an edifice, instead of merely filling a large cart with materials; some of them very rough stones indeed, as for instance the following:—

“It will be sufficient therefore to say, that since the time of their discovery (1676) up to the present period, all that we know of the true spermatozoa of animals is, that they are not distinguishable from Cercaria found in the liver of snails, the animal organization of which has been made out by Bauer, Wagner, and Ehrenberg.” (p. 4.)

“28. The power of infusorial organization is instinctively shown by the strong chewing apparatus with teeth which they possess, and their exhibition likewise of a complete mental activity.” (p. 7.)

A tap or two with the editorial hammer would, we think, have shown Mr. Pritchard that these two blocks are very much cracked and quite unfit for his purpose. In fact, the former statement is formally repudiated at pp. 61 and 177 of his own work.

“In almost all ages of the world there has been evinced a restless desire within us to pry into the nature or principle of life, and the precise conditions on which it is retained; and notwithstanding that our bodies, its present *abiding-place*, are confessedly frail and perishable, the unravelling of an invisible and immaterial agent has been sought for by a reference to them.” (p. 26.)

We quite agree with the author, that those who have been trying “to unravel an invisible and immaterial agent” might have been better employed. The occupations of Sisyphus and the Danaïdes were encouraging in comparison.

Mr. Pritchard tells us in the preface that the work has been prepared in conjunction with Mr. Arlidge. There is internal evidence enough indeed, without this assurance, to show that two heads have been employed upon it. It is no business of ours to draw invidious comparisons, but as we have given a specimen of the productions of the one head, we must in justice lay before the reader a more creditable sample, evidently the work of the other.

“It would be but an exercise of the imagination to seek after resemblances between the majority of the Infusoria and higher animals; the resemblances could be but fanciful, existing only in external form. In studying the Infusoria, the mind should be unbiassed by a knowledge of the organization of the higher animals; we ought not to set out with the assumption, that such living atoms must be furnished with the organs of superior existences, and then indulge the imagination by accommodating appearances observed to our preconceived notions; but we should rather endeavour to learn under what simple conditions and contrivances animal life can be manifested and continued.” (p. 60.)

No one who regards the modern progress of zoology can fail to agree with the view here expressed ; but how does it harmonize with Prof. Ehrenberg's main and fundamental doctrine, that organization has no relation to size, and that the Infusoria have all the organs which characterize the higher animal ?

Indeed, while we can conscientiously recommend the present work as a very useful assistant to those who are working for themselves, we must caution our readers against the very unphilosophical subservience to the authority of a name which it too often exhibits. Thus, after a discussion of the polygastric theory of Ehrenberg, we find it said of subsequent observers—

“ With Van der Hoeven, all coincide in denying the existence of an inclosing wall to the vesicles, and of an intercommunicating tube between them ; and all assert the ever-varying number and disposition, as well as the movements (even rotatory) of these supposed stomachs.” And yet we are told further on—

“ From the preceding conflicting opinions and observations no satisfactory deduction can be made ; Ehrenberg's opinions, however, are entitled to great respect, although the theory of a polygastric structure may not admit of demonstration.”

We have every respect for Prof. Ehrenberg, but we are really at a loss to understand why *his* opinions, if they be “incapable of demonstration,” are more “entitled to great respect” than those of any one else, especially when these opinions are at variance with those of an unanimous host of at least equally competent observers.

Authoritative assertion in science, it is well to remember, is not evidence ; it only affords a presumption, better or worse founded according to the real value of your authority, that evidence may exist. Great authority may be a good ground for a temporary suspension of judgement when opposed to less authority, but it is valueless when opposed to good evidence.

A great authority, whose “opinions are incapable of demonstration,” is a sort of scientific balloon, brilliant to look at and much gaped at of the multitude ; but containing nothing but gas and sand, and liable to come down with a crash at the touch of the first critical penknife.

A Synopsis of the Family of Naiades. By ISAAC LEA. Third edition, greatly enlarged and improved. Philadelphia, 1852. 4to.

By the title of this work we might be led to suppose it would afford the conchologist the means of determining the species of this very interesting family of freshwater bivalve shells, or at least give a reference to the books where the species are figured and described, and the countries they inhabit. Unfortunately the author has not thought this desirable. The work simply consists of a list of 767 species, each followed by the names by which other authors have described it, accompanied by an abbreviation of the name of the author.

Then follows a list of the species of each subgenus, arranged in alphabetical order, under Europe, Asia, Africa, North and South America, and New Holland, as they happen to inhabit.